

**PREPARATION AND CHARACTERIZATION OF POLY(LACTIC
ACID) / POLYOXYMETHYLENE (POM) BLENDS**

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**PREPARATION AND CHARACTERIZATION OF POLY LACTIC
ACID(PLA)/POLYOXYMETHYLENE(POM) BLENDS**

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Thesis submitted in partial fulfilment of the requirements
for the award of the degree of
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SUPERVISOR'S DECLARATION

We hereby declare that we have checked this thesis and in our opinion, this thesis is adequate in terms of scope and quality for the award of the degree of Bachelor of Chemical Engineering.

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STUDENT'S DECLARATION

I hereby declare that the work in this thesis is my own except for quotations and summaries which have been duly acknowledged. The thesis has not been accepted for any degree and is not concurrently submitted for award of other degree

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DEDICATION

In The Name of Allah, Most Gracious, Most Merciful

Love special dedicated to

Special inspiring and special encouraging of my lovely parent: Nizulkeman Bin Mohamed and
Rosmawati Binti Yaacob,

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I would like to take an opportunity to reveal my gratitude towards my parents, Mr. Nizulkeman Bin Mohamad and Mrs. Rosmawati binti Yacoob for their prayers, supports and love that never breaks. I appreciate their sacrifice, patient and moral support throughout my research and my studies.

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LIST OF SYMBOLS

T_g	Glass transition temperature
T_c	Crystallization temperature
T_m	Melting temperature
D	Diffusivity ($\text{m}^2 \text{s}^{-1}$)
C-20	Cloisite-20
t	time (s)
D	diffusivity ($\text{m}^2 \text{s}^{-1}$)
X	distance of diffusion (m)

LIST OF ABBREVIATIONS

POM	Polyoxymethylene
PLA	Poly lactic acid
FTIR	Fourier transform infrared spectroscopy
SEM	Scanning electron microscopy
DSC	Differential scanning calorimetry
TGA	Thermogravimetric analysis
TEM	Transmission electron microscope
TS	Tensile strength
ATR	Attenuated total reflectance
UTM	Universal test machine